








# Prevalence and Predictors of Anxiety and Depression among Leprosy Patients using the Hospital Anxiety and Depression Scale-Pilipino Score in a Tertiary Hospital 2018



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## Abstract

Study Population	Methods	Results
 <p>All admitted Leprosy patients and seen at the outpatient clinic of DJNRMH <b>n=150</b></p>	 <p><b>Hospital Anxiety and Depression Scale-Pilipino</b> Cut off score: <b>8</b> per category</p>  <p><b>Logistic regression analysis to identify predictors</b></p>	 <p><b>ANXIETY</b> <b>57.33%</b></p> <ul style="list-style-type: none"> <li>Hypertension (Odds ratio 3.02)</li> <li>Minor disability (Odds ratio 2.30)</li> </ul>  <p><b>DEPRESSION</b> <b>24.67%</b></p> <ul style="list-style-type: none"> <li>Educational attainment (Odds ratio 0.3)</li> </ul>

## Background

This study was prompted by significant reports of anxiety and depression among people with skin disorders in clinical settings and primarily focuses on leprosy patients

## Introduction

Leprosy, also known as Hansen's disease, is a chronic infectious disease that primarily affects the skin, peripheral nerves and upper airway.<sup>1</sup> It is often feared as highly contagious and debilitating disease. It has remained endemic in many countries, including the Philippines, especially affecting the poorest sector.

The stigma and discrimination long been associated with the disease still exists in most of the world and the psychological and social consequences may be more challenging to deal with than the actual physical illness.

Leprosy has been portrayed as a disease responsible for serious physical deformities and disabilities associated with social stigma and psychosocial suffering leading to isolation from society and later on anxiety and depression.<sup>1</sup>

## Methods and Materials

This is a cross-sectional descriptive study conducted at Dr. Jose N. Rodriguez Memorial Hospital located at Tala, Caloocan City, Philippines.

All patients admitted at the Custodial ward and seen at the outpatient during the study period will be included using convenience sampling.

The prevalence of anxiety and depression was determined by a score of 8 points or higher on the HADS-P.

According to the study by De Guzman et al HADS-P is a reliable, valid and practical screening tool to help clinicians towards diagnosis of anxiety and depression. A HADS-P score >8.0 had a sensitivity of 91%, specificity of 59%, and a PPV of 61% for detecting anxiety or depression<sup>2</sup>

Logistic regression analysis was utilized to determine the relationship between the socio demographic data and clinical variables with anxiety and depression. Odds ratio were calculated and P-value <0.05 were considered as statistically significant.

## Results

Among the 150 Leprosy patients included in the study with a HADS-P score of 8 and above per category showed that 86 (57.33%) of the respondents have anxiety and 37 (24.67%) have depression.

Table 1. HADS-P Scores of Participants

	n	%
HADS-P for Anxiety		
Normal (0-7)	64	42.67 %
<b>Suggestive (8-10)</b>	<b>37</b>	<b>24.67 %</b>
<b>Probable (11 and above)</b>	<b>49</b>	<b>32.67 %</b>
HADS-P for Depression		
Normal (0-7)	113	75.33 %
<b>Suggestive (8-10)</b>	<b>27</b>	<b>18.00 %</b>
<b>Probable (11 and above)</b>	<b>10</b>	<b>6.67 %</b>

Running a logistic model that predicts a person having an anxiety, having hypertension as well as having a minor disability were proven to be significant with p-value 0.02 and 0.09 respectively.

An odds ratio of 3.01 denotes that a person with hypertension is twice (2.01) as likely to have anxiety than a person with no comorbidities.

Table 2. Predictors of Anxiety

	Odds Ratio	95% CI of Odds Ratio	p-value
Co-morbidities (Baseline: No Comorbidities)			
<b>Hypertension</b>	<b>3.02</b>	<b>(1.24, 7.36)</b>	<b>0.0152*</b>
Type 2 Diabetes Mellitus	1.73	(0.31, 9.72)	0.5361
Cancer	0.99	(0.04, 27.02)	0.9939
PTB	2.95	(0.39, 21.98)	0.2919
Kidney Disease	2.10	(0.13, 32.86)	0.5963
Physical Disability (Baseline: No physical disability)			
<b>Minor disability</b>	<b>2.30</b>	<b>(0.88, 5.98)</b>	<b>0.0887*</b>
Moderate disability	2.22	(0.49, 9.98)	0.2982
Major disability	2.63	(0.27, 25.34)	0.4018

\*statistically significant

Running a logistic model that predicts a person having a depression, educational attainment was shown to be significant at p-value equal to .04. Having a high school degree in particular is significant at .05 alpha.

An odds ratio of 3.01 denotes that a person with hypertension is twice (2.01) as likely to have anxiety than a person with no comorbidities.

Table 3. Predictors of Depression

	Odds Ratio	95% CI of Odds Ratio	p-value
Educational Attainment (Baseline: Elementary)			
<b>High School Level</b>	<b>0.30</b>	<b>(0.09, 0.99)</b>	<b>0.0475*</b>
College Level	0.40	(0.08, 1.86)	0.2406

\*statistically significant

## Conclusions

In this study, the prevalence of anxiety is 57.33% and depression is 24.67% which is consistent with what has been found in literatures.<sup>3,4</sup>

Factors predictive of depression is lower educational attainment and factors predictive of anxiety is presence of comorbidity specifically Hypertension and minor physical disability.

To our knowledge, this represents the first study to investigate presence of anxiety and depression among leprosy patients in the Philippines

This psychiatric comorbidity will have impact on the overall well being of patients. Therefore, the need for psychiatric evaluation among patients with leprosy cannot be overemphasized, as this will provide holistic approach in the management of the patients.

## References:

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